EXPRESS MAIL NO. EV336593215US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	A. Charles Morgan, Jr. et al.
Application No.	:	09/654,116
Filed	:	August 30, 2000
For	:	GROWTH BLOCKING AGENTS
Examiner	:	Patricia A. Duffy, Ph.D.
Art Unit	:	1645
Docket No.	:	180042.418C2
Date	:	January 7, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF EDWARD V. QUADROS, PH.D.

The undersigned, Dr. Edward V. Quadros, hereby declares:

1. I am currently an Associate Professor in the Departments of Medicine and Biochemistry at the State University of New York Health Science Center and a co-inventor of the subject matter disclosed in the above-identified application.

2. I have read and understood the above-identified application and submit this Declaration for the purpose of providing evidence that a person of ordinary skill in the relevant art, based upon the teachings of this application and the general knowledge in the field, could readily produce the claimed antibodies.

3. As an initial matter, I submit that the application provides sufficient instruction and guidance to enable one of ordinary skill in the art to produce monoclonal antibodies having the same properties as those described and claimed in the application, even if exactly the same monoclonal antibodies as those specifically described in the application are not obtained. More specifically, the application provides detailed instruction regarding the production of monoclonal antibodies directed to transcobalamin II (TcII), including methods of producing recombinant TcII to be used as immunogen (Example 8) and methods of producing and identifying monoclonal antibodies directed to

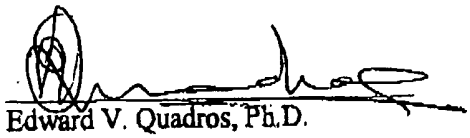
a Vitamin B12 binding site on TcII (Example 9). Furthermore, the application provides detailed methods for identifying monoclonal antibodies directed to the Vitamin B12 binding site on TcII that possess the claimed characteristics of inhibiting cellular uptake of Vitamin B12 and blocking cell growth. Specifically, Example 10 describes methods of identifying monoclonal antibodies that inhibit cellular uptake of Vitamin B12, and Examples 12 and 16 describe methods of identifying monoclonal antibodies that inhibit cell growth. Accordingly, I submit that one of ordinary skill in the art, based upon the guidance provided in the application and general knowledge in the field, would be able to readily produce monoclonal antibodies to TcII and identify those directed to a Vitamin B12 binding site on TcII that are capable of inhibiting cellular uptake of vitamin B12 and blocking cell growth without undue experimentation or difficulty.

4. Furthermore, I submit that the skilled artisan would have every expectation that monoclonal antibodies produced and identified according to the methods described in the application would possess the claimed characteristics based, at least in part, on the description of the successful production of such antibodies provided in the Examples of the application. According to the application, the method described in Example 9 was used to successfully identify a number of monoclonal antibodies directed to the Vitamin B12 binding site on TcII, as illustrated in Figure 5. Furthermore, the method described in Example 10 was used to successfully identify monoclonal antibodies directed to TcII that inhibited cellular uptake of Vitamin B12, as shown in Figure 6. I further submit that the skilled artisan would immediately recognize that antibodies that inhibit the binding of Vitamin B12 to TcII would necessarily inhibit cellular uptake of Vitamin B12, since it is well known in the art, as described in the instant application, that Vitamin B12 uptake is mediated by TcII via the TcII receptor. Based on this understanding and the evidenced success at producing monoclonal antibodies having the claimed characteristics, I submit that one of ordinary skill in the art would be able to similarly produce monoclonal antibodies having these characteristics without difficult or undue experimentation, based solely on the teachings of the application and general knowledge in the art.

5. In summary, upon review of the patent application, I readily conclude that monoclonal antibodies having the claimed features could be readily produced by a person

of ordinary skill in the art based solely on the instruction provided in the application and general knowledge in the field.

6. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful, false statements, and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.



Edward V. Quadros, Ph.D.

Jan 8th, 2004
Date